

EUROPEAN PATENT OFFICE

Patent Abstracts of Japan

PUBLICATION NUMBER : 59021593
PUBLICATION DATE : 03-02-84

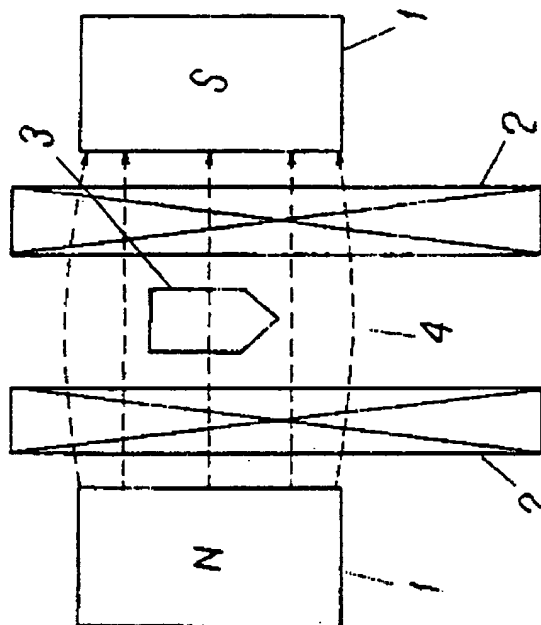
APPLICATION DATE : 23-07-82
APPLICATION NUMBER : 57129332

APPLICANT : MATSUSHITA ELECTRIC IND CO LTD;

INVENTOR : SAJI HARUO;

INT.CL. : C30B 11/00

TITLE : METHOD FOR GROWING SINGLE CRYSTAL



ABSTRACT : PURPOSE: To obtain efficiently and inexpensively a single crystal having good quality by growing the single crystal under application of a ferromagnetic field by using a Bridgman method.

CONSTITUTION: A crucible 3 is held in an electric furnace 2, and while a single crystal is grown therein, a ferromagnetic field is applied to the single crystal by an electromagnet 1. If the ferromagnetic field is applied thereto, the convection of the melt can be suppressed as far as possible and consequently the entry of Pt and Rh eluting from the blank material for the crucible into the melt can be prevented. More specifically, the convection of the melt can be suppressed by making use of the principle that electric current is generated in a conductor moving across magnetic lines 4 of force in the moving direction of said conductor and in the direction at a right angle to the lines 4 and that the conductor receives the force in the direction opposite from the moving direction thereof by the mutual effect of said current and the lines 4. The fluctuation in the temp. of the melt is thus minimized considerably and since there is no agitation, the generation of a small angle boundary is virtually eliminated and the single crystal contg. less impurities and having good quality is efficiently and inexpensively is grown.

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